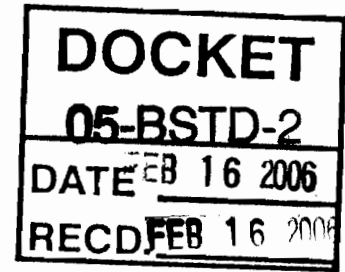


STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission



In the Matter of:

2008 Update to the Building Energy Efficiency
Standard – Title 24

Docket: 05-BSTD-2

JOINT WORKSHOP COMMENTS OF SOUTHERN CALIFORNIA EDISON
COMPANY, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS &
ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY ON
PROGRAMMABLE COMMUNICATING THERMOSTAT REQUIREMENTS
DEVELOPMENT

MICHAEL D. MONTOYA
JANET S. COMBS

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-1524
Facsimile: (626) 302-7740
E-mail: Janet.Combs@SCE.com

Dated: February 16, 2006

STATE OF CALIFORNIA

**Energy Resources Conservation
And Development Commission**

In the Matter of:

2008 Update to the Building Energy Efficiency
Standard – Title 24

)
)
)
)

Docket: 05-BSTD-2

**JOINT WORKSHOP COMMENTS OF SOUTHERN CALIFORNIA EDISON
COMPANY, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS &
ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY ON
PROGRAMMABLE COMMUNICATING THERMOSTAT REQUIREMENTS
DEVELOPMENT**

I.

INTRODUCTION

Pursuant to the California Energy Commission's Notice of Staff Workshop on Programmable Communicating Thermostat (PCT) Systems Integration Framework to be held on February 16, 2006, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDGE), Southern California Gas Company (SCG), and Southern California Edison Company (SCE) (collectively, the Joint Utilities) provide these joint workshop comments on the California Energy Commission's (CEC) Programmable Communicating Thermostat (PCT) requirements development.

II.

DISCUSSION

The Joint Utilities are very supportive of CEC's programs and the state's objectives of achieving energy reliability through demand side measures. However, there are concerns with the present feasibility of developing a specific PCT communication protocol. Specifically, the Joint Utilities have concerns regarding the proposed AM/FM communication design developed by CEC consultants. As a result, we offer the following recommendations to improve the outcome.

A. PCT Program Coordination and Integration

New programs like PCT should be effectively coordinated and integrated with existing initiatives such as Demand Response (DR), Energy Efficiency and Advanced Metering Infrastructure (AMI). Effective coordination and integration with ongoing efforts would leverage each of the Joint Utilities' existing infrastructure and programs and reduce potential inefficiencies related to duplicate or cross-purpose outreach efforts.

B. PCT Program Objectives vs. Design Objectives

CEC staff and consultants have articulated four specification criteria as guiding principles, intended to define CEC policy objectives for the PCT. The four criteria are:

- One PCT Systems Integration (SI) Interface (I/F) for all of CA (US)
 - Owner Installed and maintained
 - Self installing and configuring
- Common Signaling throughout CA (US)
- Works with any minimum AMI system
- Compatible with legacy technologies

Fundamentally, these four PCT criteria are not policy objectives of the initiative, but rather design objectives. It is not clear that common signaling via a universal communication scheme throughout the state (or nationally), as proposed, is necessary or desirable to achieve the

CEC's PCT objective of achieving significant demand response. Since all electric distribution utilities including IOUs, municipals and irrigation districts may not necessarily use the same AMI communication platform, a uniform statewide requirement is not likely to be an effective solution (and could limit choice and technology competition). In addition, even if the utilities use the same AMI platform, it is still important to leave open the market for PCTs and other energy management devices to be operable by a wide variety of communication means, to ensure that the utilities can choose the most cost-effective and reliable communication method or combination of methods. The Joint Utilities understand the CEC's desire to mandate PCT requirements to achieve policy objectives, but design flexibility is essential for integrating this program with other programs. The Joint Utilities envision PCTs to have additional uses including grid reliability, price response and utility economic dispatch. By designing for these uses, additional benefits to customers and the system as a whole will be derived.

Further, PCTs should be compatible with and leverage future AMI investment. The Joint Utilities encourage continued development of an open architecture system, and do not recommend a single communications medium or proprietary technology (*i.e.*, one-way communications with AM/FM). There are numerous existing communication methods (*e.g.*, powerline carrier and RF), and several alternative communication protocols and media are in various phases of development and testing (*e.g.*, broadband over powerline (BPL) or wireless Wi-Max). These existing, proven and new, emerging communications methods would allow PCT manufacturers to avoid the cost of including the AM/FM communication link if the local serving utility has an alternative system available. The Joint Utilities submit that a variety of communication methods at the utility level does not translate into complexity at the statewide or CAISO level. For example, at the "head end" of each utility's system, there could be an interface that translates a single message into each utility's specific communication network.

The Joint Utilities are actively engaged in gathering PCT requirements that will lead to a technology solution. These requirements must be unambiguous, testable, verifiable, and complete. Once established, we will invite comment on methodologies and reference designs

that comply with those requirements as well as address the business needs of the individual Utilities. However, by specifying a technology solution now, before the requirements gathering phase is complete will lead to a disjointed and less cost effective result. The Joint Utilities therefore encourage the CEC to develop the policy goals that will enable us to define our requirements.

C. Utility control of PCT is essential for reliable distribution grid management and economic dispatch

It is important to recognize the roles of the utility grid operators and energy procurement groups that respectively manage the distribution system and utility energy supply. These roles exist separately and in coordination with the California Independent System Operator (CAISO). The current PCT proposal appears to overlook these utility roles, and implies that the CAISO would determine whether a PCT system would be dispatched for grid reliability or economics. While the CAISO does identify transmission system conditions that may warrant the use of a PCT system, the CAISO works with the individual utilities that make the distribution level decisions to support the transmission level needs. Further, it is our experience that the utilities would use the system more frequently to address distribution constraints that are not within the CAISO's jurisdiction. Also, there seems to be some misunderstanding from the PCT proposal regarding the role of the investor-owned utilities (IOUs) in procuring energy for our customers and the dispatch of generation and other resources, such as the potential PCT program for economics. To be clear, the IOUs do dispatch resources daily and in real-time to balance their loads and resources. This economic dispatch is done in coordination with the CAISO, but at the discretion of each IOU for its service territory.

D. The Joint Utilities are committed to working with the vendor community and CEC to develop PCT requirements.

The Joint Utilities realize that the CEC has a very tight schedule to enable timely implementation of the 2008 new building code standards. The Joint Utilities are committed to working with all pertinent stakeholders during the first and second quarters of this year to fully address the communications requirements, options, costs and risks to facilitate the development

of the Title 24 PCT requirements. Toward this commitment, the Joint Utilities have scheduled a planning session later this month to prepare a work plan that is intended to be compatible with the overall Title 24 timeline for the PCT.

Respectfully submitted,

MICHAEL MONTOYA
JANET S. COMBS

By: Janet S. Combs

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

February 16, 2006

CERTIFICATE OF SERVICE

I hereby certify that, I have this day served a true copy of **JOINT WORKSHOP COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA GAS COMPANY ON PROGRAMMABLE COMMUNICATING THERMOSTAT REQUIREMENTS DEVELOPMENT** on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

- ☒ Transmitting the copies via e-mail to all parties who have provided an e-mail address. First class mail will be used if electronic service cannot be effectuated.
- ☒ Placing the copies in sealed envelopes and causing such envelopes to be delivered by hand or by overnight courier to the Docket Unit and offices of the Commission or other addressee(s).
- ☐ Placing copies in properly addressed sealed envelopes and depositing such copies in the United States mail with first-class postage prepaid to all parties.
- ☐ Directing Prographics to place the copies in properly addressed sealed envelopes and to deposit such envelopes in the United States mail with first-class postage prepaid to all parties.

Executed this **February 16, 2006**, at Rosemead, California.

Meraj Rizvi
Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770